



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-8

Issued: 17 Feb 22 / 0800L (1300Z)

Valid: 20 Feb 22 / 1110 - 1144L (1610 – 1644Z)



Forecast Discussion: A developing low pressure system will make its way into the Tennessee Valley today, while high pressure remains in control across Central Florida. By Friday, the low pressure area will move into the North Atlantic, dragging a front along the Eastern Seaboard and into North Florida. The front will push through the Space Coast on Saturday, bringing clouds and isolated showers to the area as well as cooler air. The front should push south of the Spaceport by Sunday as high pressure builds back into the region. The primary concerns for a Sunday morning launch are Liftoff Winds and the Cumulus Cloud Rule associated with the onshore flow and isolated coastal showers.

On Monday another low pressure system will develop in the Great Plains region, but high pressure will continue to dominate Central Florida, keeping favorable launch conditions at the Spaceport. The primary weather concern Monday remains the Cumulus Cloud Rule, associated with very isolated showers along the periphery of the high pressure area.

Launch Day	Probability of Violating Weather Constraints ¹							
	20%	Primary Concerns: Liftoff Winds, Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria ²		
	Weather/Visibility:	Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low-Mod
	Temp/Humidity:	70°F / 64%	Cumulus	Few	2,500	10,000	Booster Recovery Weather:	Low-Mod
	Liftoff Winds (200’):	080° 12 - 17 mph	Altostratus	Scattered	12,000	15,000	Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	10%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions						Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	72°F / 82%	Cumulus	Few	3,000	10,000	Booster Recovery Weather:	Low-Mod
	Liftoff Winds (200’):	100° 10 - 15 mph					Solar Activity:	Low
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.							
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.							
See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information								
Next Forecast Will Be Issued			18 Feb 22					